



Introduction to Renewable Energy Project Finance Structures

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FEMP
Federal Energy Management Program

- Why is this topic relevant?
 - Increase your understanding of the project finance process with a “behind the scenes” look at common structures used to finance transactions involving a PPA.*
 - Introduce terminology.
 - Project finance structure can influence certain terms in the PPA.
 - Potential novation-related issues given that ownership of a project can change over the life of the project.

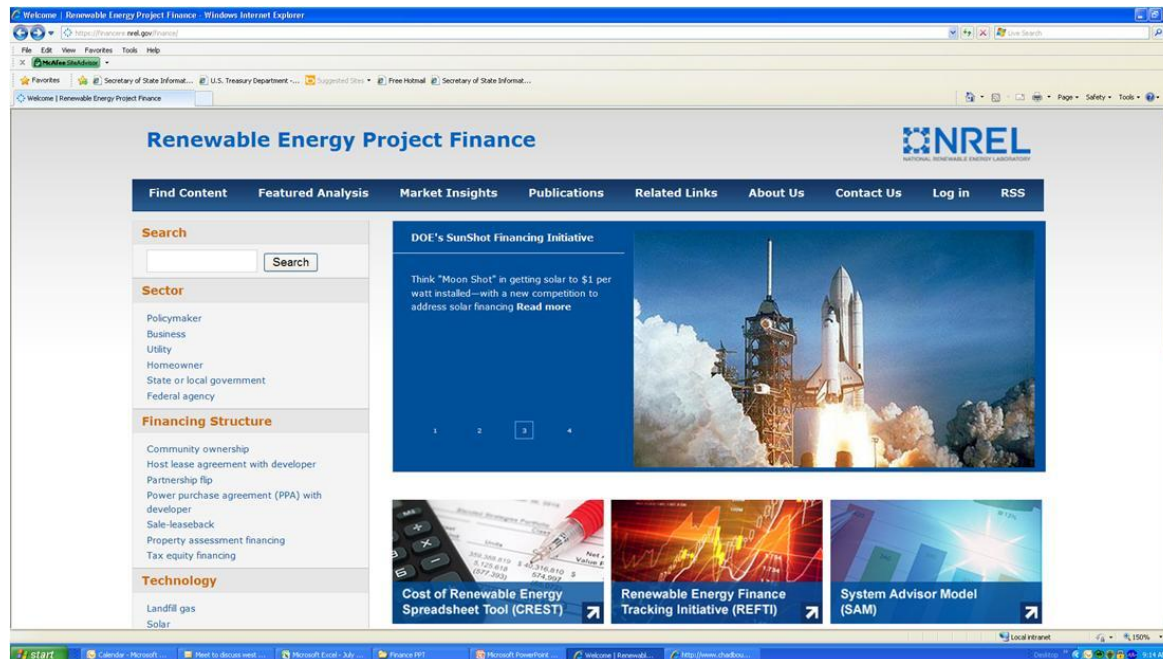
* Power Purchase Agreement

Milbank presentation to FUPWG* – 4/12/12

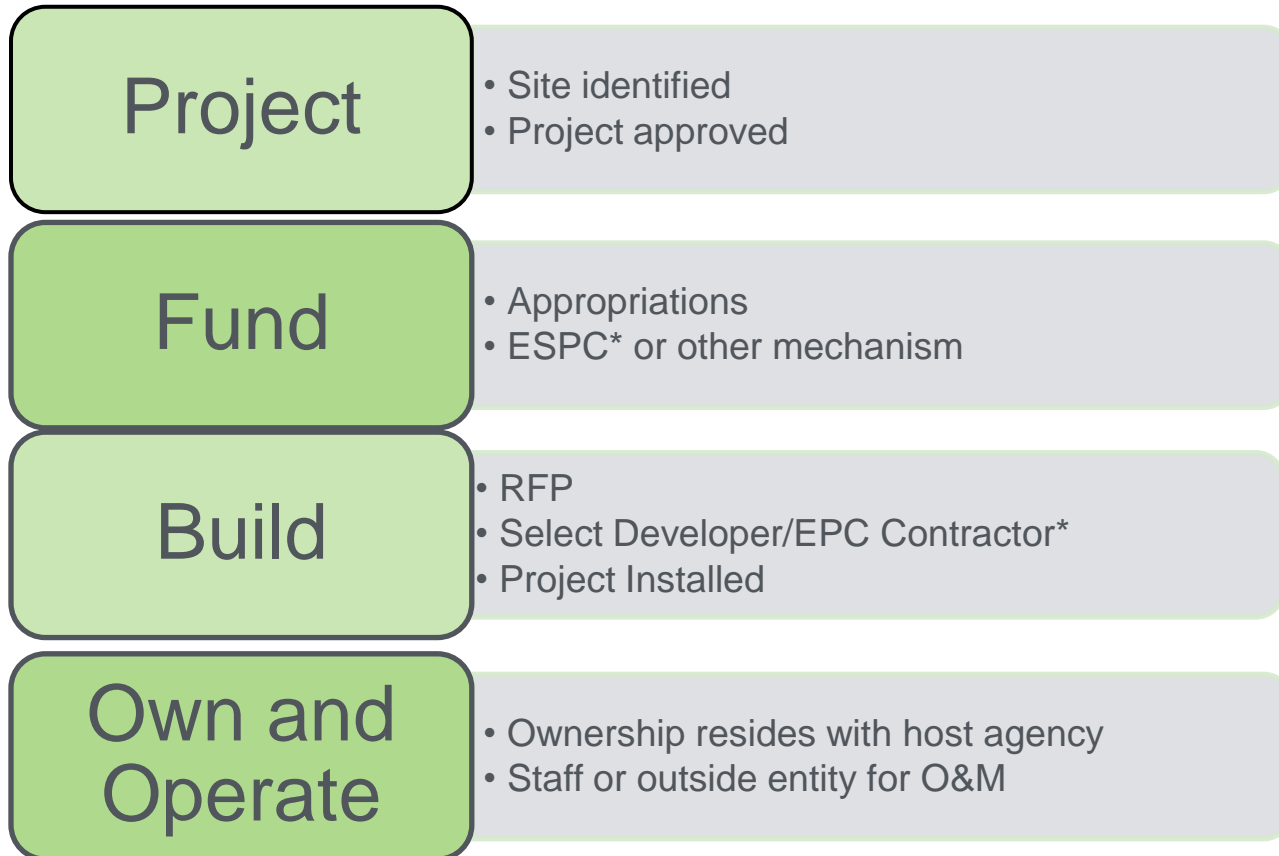
- Lots of excellent details on taxes, incentives, and project structures.
- http://www1.eere.energy.gov/femp/pdfs/fupwg_spring12_regante.pdf

NREL's Renewable Energy Finance portal

- Sources information from a number of public and private sources
- <https://financere.nrel.gov/finance/>



*Federal Utility Partnership Working Group



* Energy Services Performance Contract

* Engineering, Procurement and Construction

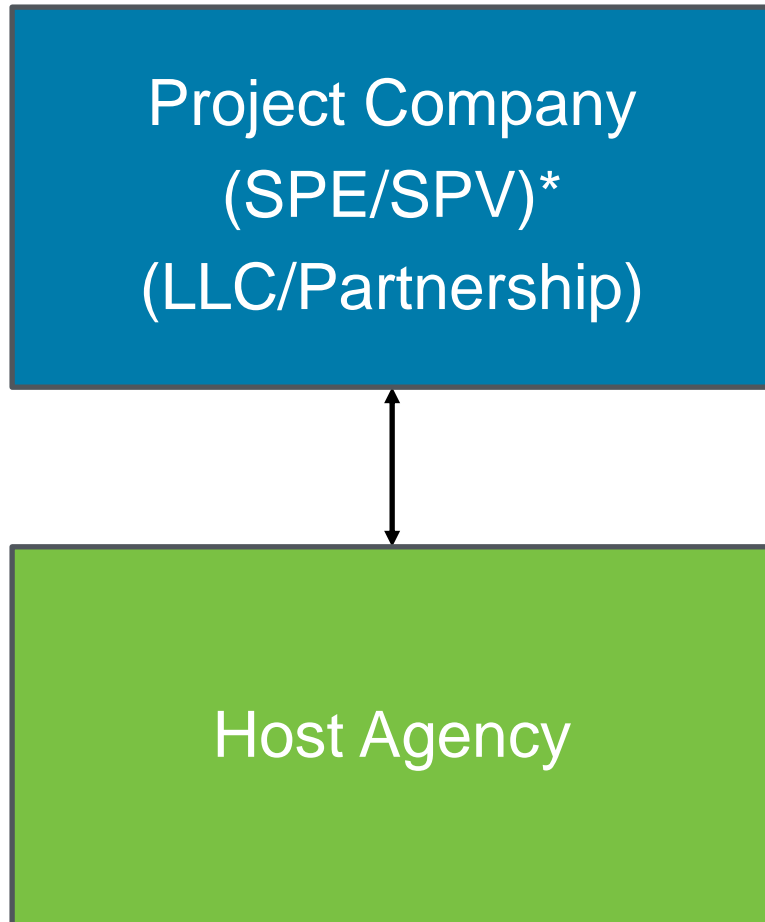
Evolution of third party financing for renewables.

Under a PPA, the building/site owner hosts a system and buys the electricity produced by it, *but does not own it*.

Contractually not an easy process for federal agencies.

Competitive market with limited capital so projects need to be attractive to all parties in order to be successful.

PPA Transaction



Project Company

- Solar Developer(s)
- Investors
- Lenders
- EPC Contractor
- Professional Services

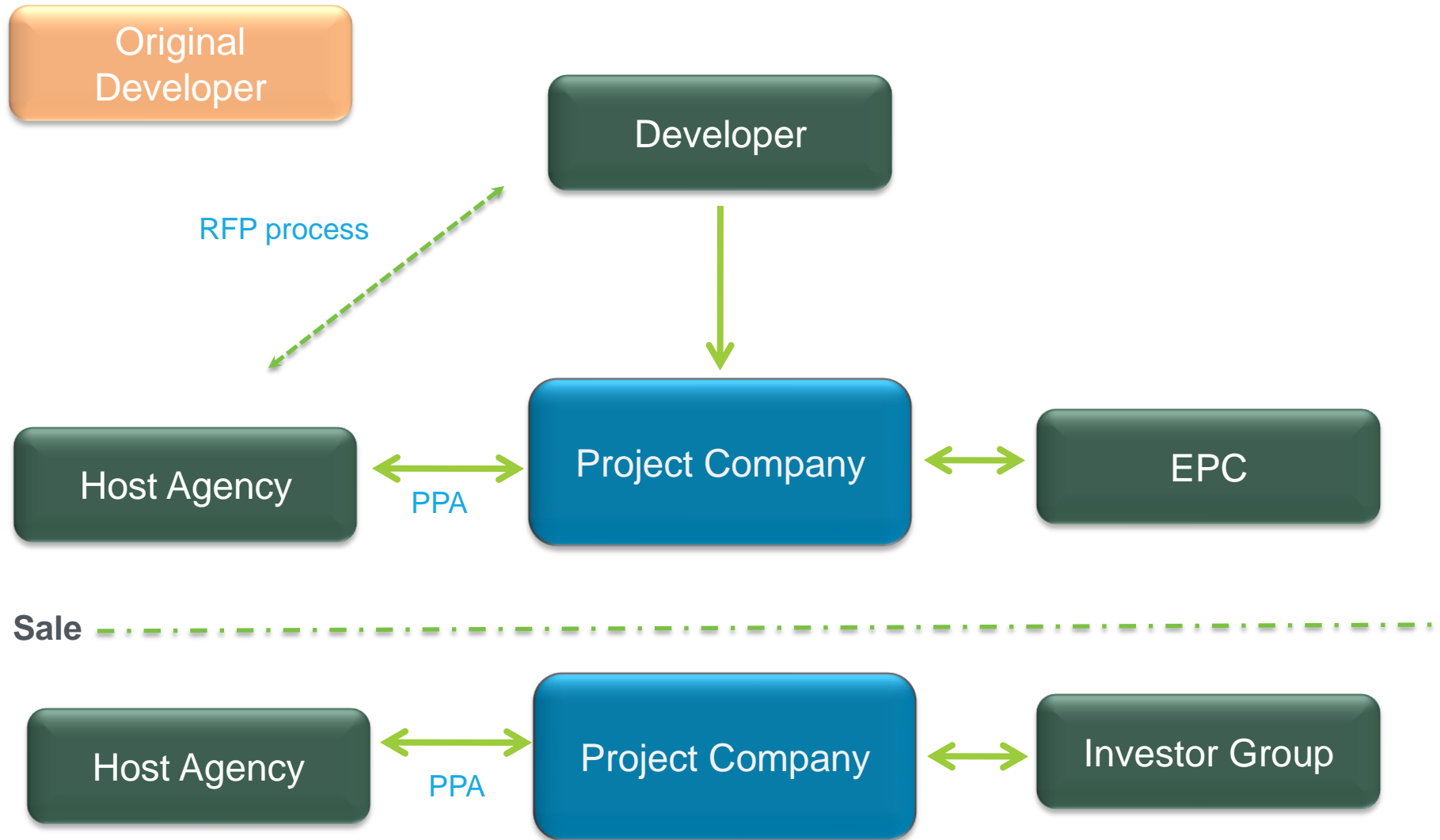
*Special Purpose Entity
Special Purpose Vehicle
Limited Liability Corporation

- The Project Company is the legal owner of the project.
- Limited Liability/Non-Recourse
- Significant structures in place at Project Company level.
 - Project assets/cash flows, equity investments, contracts, insurance, warranties and reserves.



Project Company

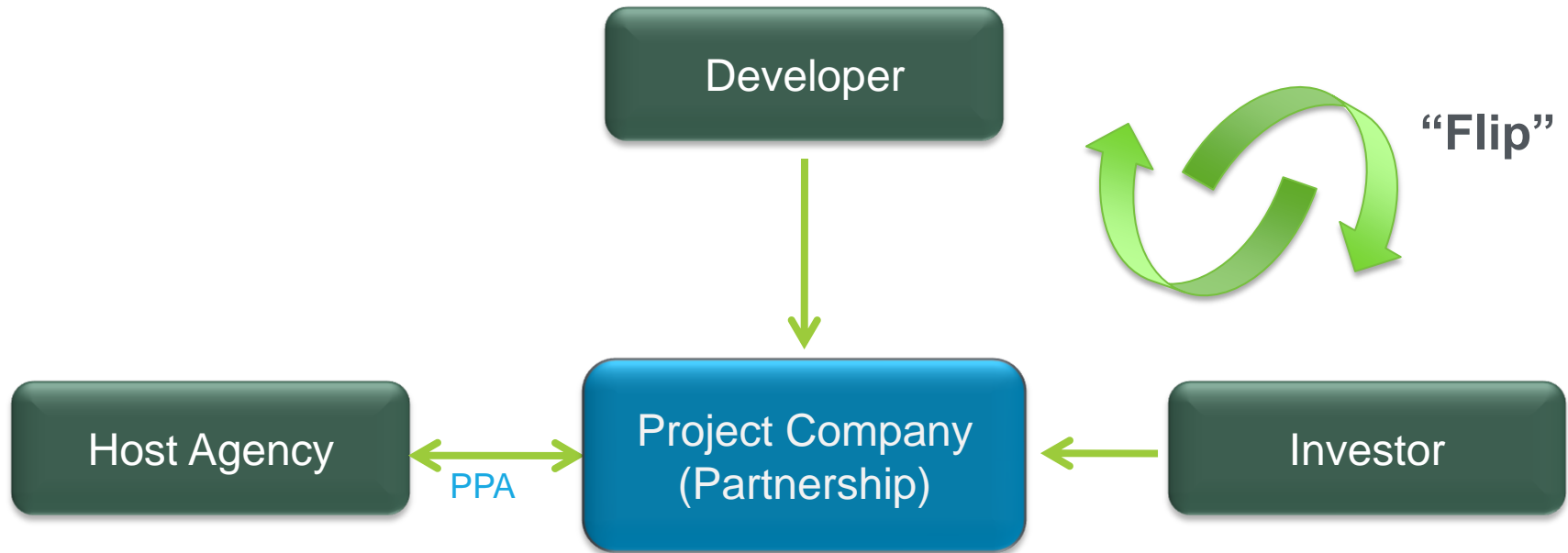
Sale of the Project Company



- Partnership Flip
- Sale Leaseback
- Inverted Lease
 - Pass through lease structure
 - Master Tenant structure

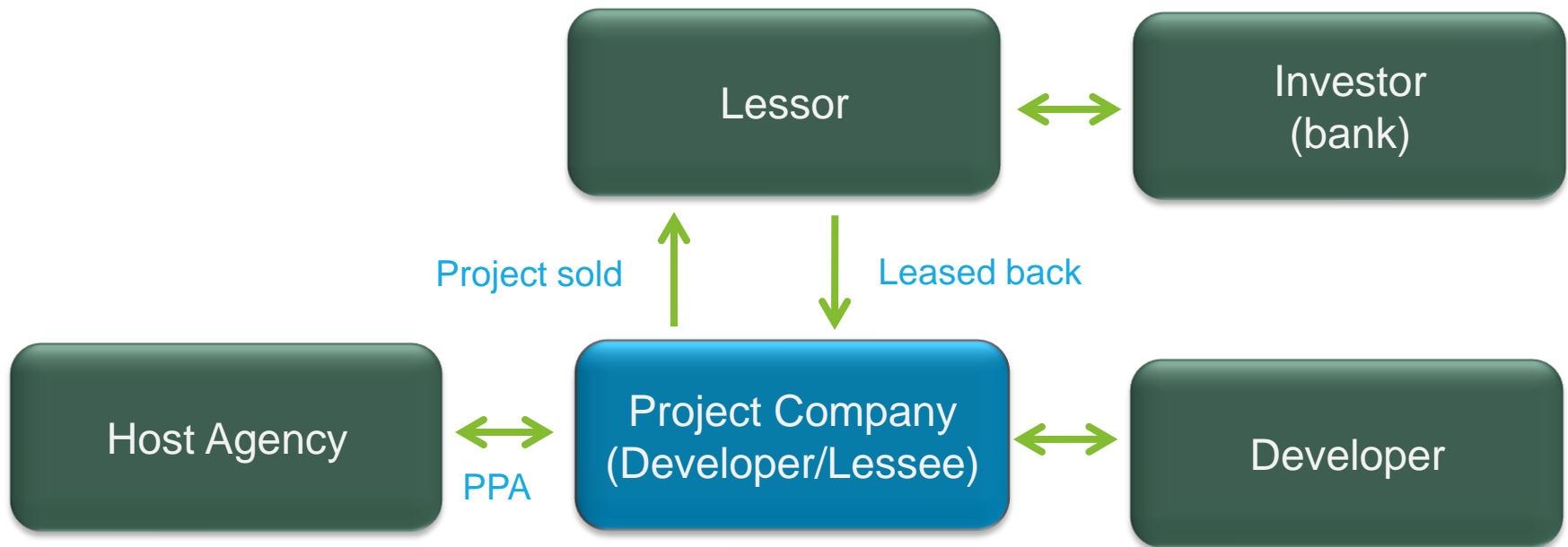


Project Company



- Investor in before project is placed in service
- After flip, eventual long term owner could either be the developer, an institutional investor, or the host if it decides to exercise its buyout option.

Sale Leaseback

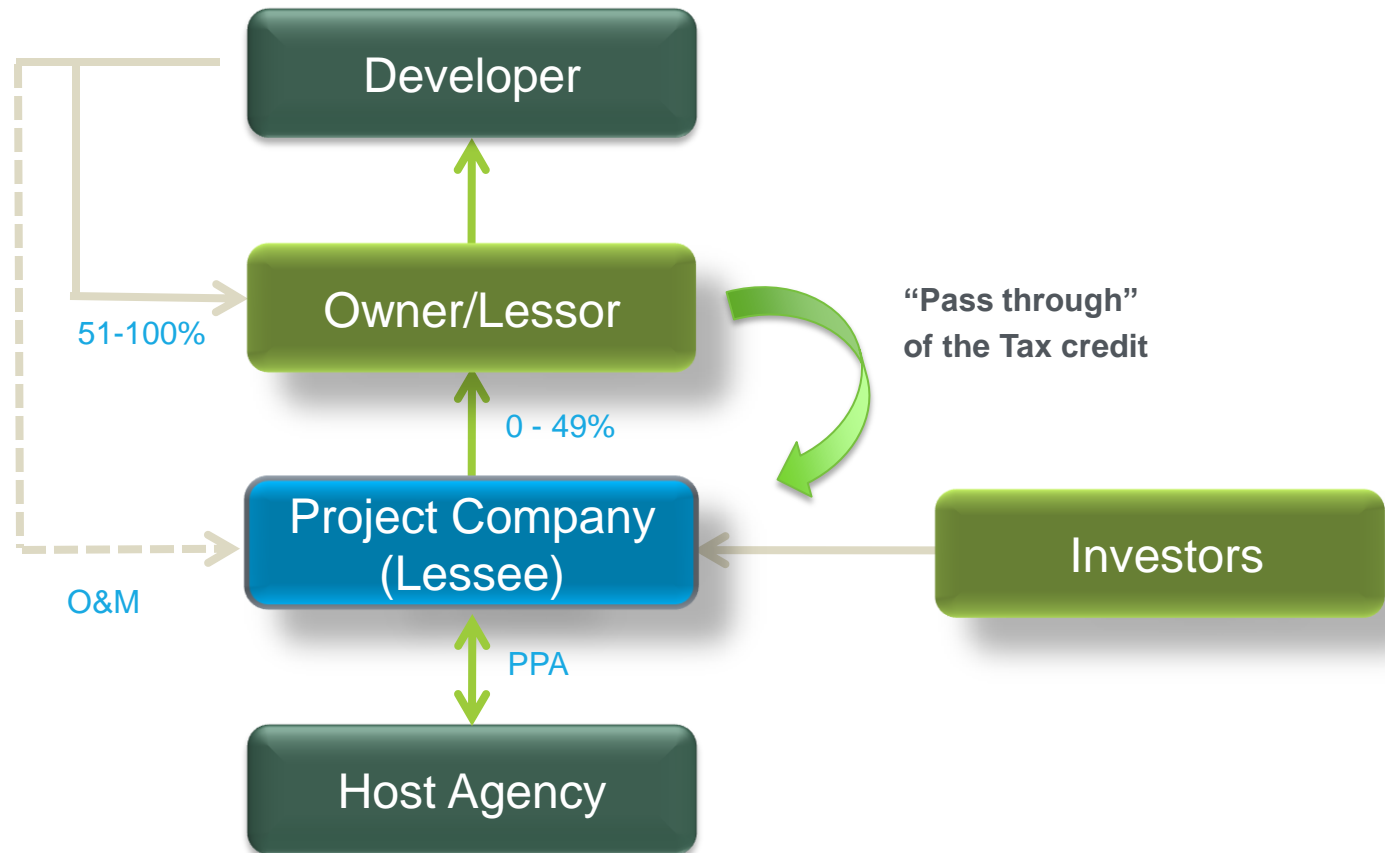


Investor has 90 days after project is placed in service to enter in to the transaction.

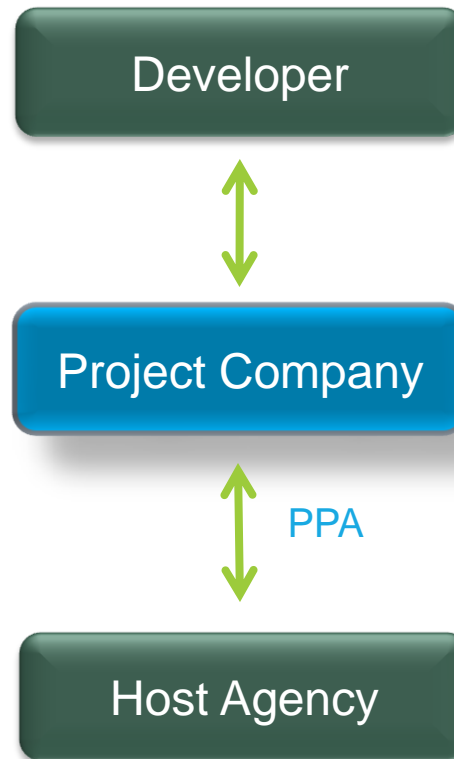
Lessor = owner of the asset

Lessee = operator of the asset

Inverted Lease



Percentages are indicative



Conceptual rather than actual legal representation of structure after investor exit.

Developer – Investor Continuum



Developer

- Any long term ownership interests?
- Timing of return on investment
- Ability to monetize depreciation
- Amount of risk willing to take (both upside and downside)
- Reputation
- Relationships with investors

Investors

- Target return
- Short or long term investment
- Ease of exit
- Accounting treatment
- Depreciation benefits
- Familiarity with structure
- Degree and types of risks to assume.
- Relationship with developer

***The return – and returns – of tax equity for US renewable projects. 2011.**

Bloomberg New Energy Finance

www.bnef.com/WhitePapers/download/54

- Third party financing has dramatically impacted the market.
- Complex financial structures involved in financing PPAs.
- Legal ownership of projects and assets can and will change throughout life of the project.
- Financing structures can influence PPA terms with the Host Agency.

It is a key part of FEMP's mission to provide support to Federal agencies in executing privately funded on-site renewable energy projects.

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